

Response to Office Action
Serial No. 09/898,859

III. REMARKS

Claims 1-31 remain in the application. The specification was objected to because of informalities. The specification has been corrected as follows:

Page 1, lines 2-3:

match are limited. One option is for a player to ride a polo pony and to hit a series ~~ef~~series of balls across a field. Whilst such practice is very effective, it is relatively

Page 6, line 9:

simulated a galloping motion in the horse but also causes the conveyor belts 22, 24

Page 8, line 15:

or side wall 12, 14 16, 18 and move down the inclined walls 26, 28 30, 32 towards one of

Page 8, line 18:

portion of the conveyor belts and the rear inclined wall 32 34.

Claims 6, 14, and 17 have been amended as suggested by the Examiner to correct obvious typographical errors. The claims have been amended as follows

CLAIM 6. (Amended) A polo training apparatus as claimed in claim 1, wherein the ~~or~~ each ball receiving surface comprises one run of an endless conveyor belt.

CLAIM 14. (Amended) A polo training apparatus as claimed in claim 1 further comprising one or more inclined surfaces adjacent to the ~~or~~ each ball-receiving surface.

CLAIM 17. (Amended) A polo training apparatus comprising a dummy horse having a substantially rigid frame and a body portion pivotally mounted on the frame, whereby the body portion can pivoted from side to side.

Please reconsider the application in view of the amendments and the following remarks.

IV. RESPONSE TO CLAIM REJECTIONS UNDER 35 USC §102

A. Response to Rejection of Claims 1, 2-5, 7, 8 and 10 to 12.

In the office action, claims 1-5, 7, 8, 10-12 were rejected under 35 USC 102 (b) as being anticipated by Green, US Patent No. 3,730,524. Green, '524, neither expressly or inherently contains, within its four corners, every element of the claims in question.

Claim 1, from which claims 2-5, 7, 8, 10-12 depend, comprises the following elements:

1. a dummy horse;
2. at least one ball-receiving surface;
3. the ball-receiving surface being displaceable relative to the dummy horse.

The definition of the ball-receiving surface is clear within the specification. According to the Application, the ball-receiving surface is movable, see

application, page 1, lines 17-19, "each ball-receiving surface is located to one side of the dummy horse and preferably is arranged to move in a direction parallel to the fore/aft direction of the dummy horse." Also, as defined in the claims as well as the specification, the ball-receiving surface comprises one run of an endless conveyor belt, the moving surface. see claim 6 and the specification, page 2, lines 6-7 and page 4, lines 20-23. It is the operation of a motor M that induces a simulated galloping motion in the horse but also causes the ball receiving surface or conveyor belts 22, 24 to move. see page 6, lines 8-10

The Examiner has stated "Green shows a polo apparatus comprising a dummy horse (10) and at least one ball-receiving surface (the playing surface).... . The playing surface in Green is the floor or ground. The floor or ground by its very nature is stationary. Unlike the Applicant's ball-receiving surface, the Green playing surface is obviously not movable.

Green merely discloses a "hobby horse" which is pushed across a playing surface by the feet of a rider. The playing surface is neither displaceable nor set in motion. To the contrary, it is the dummy horse that is displaceable by the rider's foot movements in relation to the playing floor. Clearly, Green does not disclose a polo training apparatus which includes a movable or displaceable ball-receiving surface located adjacent to and below the dummy horse, as described in claim 1.

According to the present invention, the balls that are hit are returned to the same movable or displaceable ball-receiving surface, where they can be hit again. see page 2, lines 16-18. The speed of the horse is linked to the speed of the ball-receiving surface so that a very realistic action can be achieved in which the induced motion of the dummy horse corresponds with the increased speed of the ball-receiving surface. see page 2, lines 9-13. The intent of the present application is that a rider can practice his or her polo techniques without having

Response to Office Action
Serial No. 09/898,859

to retrieve the balls which have been hit, and since the rider effectively stays in the same place because the balls are moved along the ball-receiving surface, it enables coaching to be given to the rider at the same time, which is much more difficult if the rider is forced to travel across a polo field to practice in the conventional manner. Green neither addresses nor solves the problem of making balls realistically available when the dummy horse is stationary. Applicant has identified the problem (see page 1, lines 1-10) and offered a workable solution to that problem by means of the ball-receiving surfaces/conveyor belts provided on either side of the dummy horse.

Green does not disclose a polo training apparatus which includes at least one movable or displaceable ball-receiving surface as described in Applicant's claim 1. Green discloses a stationary floor or playing surface. Claims 2-5, 7, 8 and 10 to 12 depend from claim 1 and include the element of a movable/displaceable ball-receiving surface. Therefore, Examiner's rejection of these claims under 35 USC 102 (b) is not appropriate. Green, '524, neither expressly or inherently contains every element of the claims in question. The present invention as defined in claims 1, 2-5, 7, 8 and 10 to 12 is patentably distinguished over Green.

The Applicant respectfully requests the Examiner to withdraw his rejection of claims 1, 2-5, 7, 8 and 10 to 12 under 35 U.S.C. §102(b).

B. Response to Rejection of Claims 17-19.

Claims 17-19 were rejected under 35 USC 102 (b) as being anticipated by Greenwood, US Patent No. 5,429,515. Greenwood, '515, neither expressly or inherently contains, within its four corners, every element of the claims in question.

Applicant claims a dummy horse having a body portion 44 pivotally mounted on a frame, whereby the body portion 44 can pivot from side to side. The side to side pivoting of the body portion 44 of the dummy horse simulates

Response to Office Action
Serial No. 09/898,859

more closely the movement of the rider and horse as the ball is hit. see page 3, lines 2-3. Applicant's Figures 2 and 3 clearly show that the body portion is labeled as 44 and the neck portion 46 is a different and distinguishable feature. In claims 17-19, Applicant is claiming a body portion that pivots.

The '515 patent merely discloses a neck portion that is pivotal. The neck member 20 is hollow and houses main and subsidiary elongate links 26, 28 each of which are pivotally attached at separate pivots to the head member 22 and to a lateral pivoting member 30 (which, as seen in Fig. 2, is part of the neck 20.) see Greenwood, '515 col. 3, lines 27-42. The double linkage arrangement ensures that as the neck portion 20 is pivoted downwardly, the head portion 22 is pivoted slightly upward. *Id.* Applicant also uses a pivotally mounted neck portion 46 and a pivotally mounted head 48 in his dummy horse but credits an earlier patent for those features, GB 2,256,597, and does not claim those features. see page 5, lines 10-18. Claim 17 is limited to a body portion 44, as distinguished from the neck portion 46, that pivots side to side.

The Greenwood '515 patent does not anticipate Applicant's claim 17.

Claims 18 and 19 depend from claim 17 and therefore have the same innovative element, a pivoting body portion 44. Column 4, lines 3-16 of the Greenwood '515 patent disclose the neck portion 20 as biased into its uppermost position as illustrated in the '515 Figs. 1 and 2. Claims 18 and 19 disclose a biasing means for biasing the body portion.

Therefore, Examiner's rejection of claims 17-19 under 35 USC 102 (b) is not appropriate because Green, '524, neither expressly or inherently discloses every element of the claims in question. The present invention as defined in claims 17-19 is patentably distinguished over Green. Applicant respectfully requests the Examiner to withdraw his rejection of claims 17-19 under 35 U.S.C. §102(b).

C. Response to Rejection of Claims 24-26.

The Examiner has rejected claims 24-26 as being anticipated by Greenwood, 5,429.515 without explanation other than to see the specification and drawings. Claim 24 has the following elements:

1. a movable body portion;
2. means for displacing the body portion;
3. and sensor means responsive to a simulated riding action in order to control the apparatus.

As discussed above, Applicant's body portion 44 is distinguished from the '515 disclosure of a neck member 20. Figure 2 shows that the body portion 44 is provided with two pressure sensitive knee sensors 80a, 80b, and feet sensors 82. The '515 patent merely discloses a pivotal neck 20 and sensor means within the neck. It does not disclose Claim 24's elements of a movable body portion and means for displacing the movable body portion, i.e., an electric motor M. see *Applicant, page 2, lines 8-15*

The Greenwood document discloses the provision of sensing means 96 which are pressure sensors sensitive to impact. see col. 5, line 35 to col. 6, line 33. The Greenwood sensors are designed to be hit by the whip of a rider and are for practicing the correct whipping technique, as indicated by the audible or visual signal. However, there is no disclosure of Applicant's sensor means as used to control the apparatus. It is clear from the aforementioned passage of Greenwood that it is the adjustable electronic control 98, 100, which controls the movement of the Greenwood apparatus.

Examiner's rejection of claims 24-26 under 35 USC 102 (b) is not appropriate and the present invention as defined in claims 24-26 is patentably

Response to Office Action
Serial No. 09/898,859

distinguished over Green. Applicant respectfully requests the Examiner to withdraw his rejection of claims 24-26 under 35 U.S.C. §102(b).

V. RESPONSE TO CLAIM REJECTIONS UNDER 35 USC §103(A)

A. Rejection of Claims 9 and 13, Green in view of Shanley

The Examiner rejected claims 9 and 13 under 35 U.S.C. §103(a) stating that the claims as filed are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art."

The Examiner rejected claims 9 and 13 under 35 U.S.C. §103(a) stating that the claims are unpatentable, in his opinion, over Green (U.S. Patent No. 3,730,524) in view of Shanley (U.S. Patent No. 2,169,663). Regarding Claim 9, the Examiner stated that Green does not expressly disclose if the dummy horse simulates the movements of a real horse. Shanley shows a polo pony wherein when the player strikes the ball with a mallet the pony is energized in a manner simulating the gallop of a live pony. The Examiner believes it would have been obvious to some one skilled in the art to combine the elements of Green with the simulated movement of a real horse as disclosed by Shanley.

Applicant notes that the Green reference does not disclose a polo training apparatus which includes at least one movable or displaceable ball-receiving surface. Applicant's claims 9 and 13 depend from Claim 1 and incorporate all of the elements of claim 1 plus additional elements of a dummy horse that is movable to simulate a real horse (claim 9) and an electric motor (claim 13). Neither Green nor Shanley disclose the unique element of a moveable or displaceable ball-receiving surface. The combination of Green and Shanley do not make obvious the "subject matter as a whole" which is a requirement of §103.

Applicant's claims 9 and 13 are distinct from the teachings of these references. There is no teaching or suggestion how one would, or why one would, proceed to combine the teachings of the cited art to achieve applicant's

Response to Office Action
Serial No. 09/898,859

invention. Green and Shanley do not teach or suggest the element of a movable ball-receiving surface nor do they teach or suggest the desirability of the combination proposed by the present invention. Applicant must again emphasize that one of the critical elements of this application is a "displaceable ball-receiving surface." This is not disclosed by either Green or Shanley.

Moreover, Shanley teaches a mechanical means of simulating the movements of a real pony. According to the Examiner and the Shanley specification, Shanley shows a polo pony having a ball and an arm attached to the side of a pony, wherein when the player strikes the ball with a mallet, the pony is energized in a manner simulating the gallop of a live pony (see Shanley page 1, column 1, lines 11-17.) Applicant dummy horse comprises an electric motor M to actuate the body portion 44 and the operation of the motor is under the control of an electronic control unit. see *Applicant, page 5, lines 19-23.*

Examiner's rejection of claims 9 and 13 under 35 USC 103 is not appropriate because neither Green, '524, nor Shanley '663 suggest or teach the elements of the claims in question, nor is the subject matter of all the elements of the invention obvious in light of Green and Shanley. The present invention as defined in claims 9 and 13 is patentably distinguished over Green in view of Shanley. Applicant respectfully requests the Examiner to withdraw his rejection of claims 9 and 13 under 35 U.S.C. §103.

B. Rejection of Claims 14-16 Green in view of Eden

The Examiner rejected claims 14-16 under 35 U.S.C. §103(a) stating that the claims are unpatentable, in his opinion, over Green (U.S. Patent No. 3,730,524) in view of Eden (U.S. Patent No. 6,093,109). The Examiner has stated that the "Green does not disclose the specifics of the game area." The Examiner continued his reasoning for the rejection under 103 as follows: Eden et al. shows such a recreational playing area (see Eden Figure 1) and it would have

Response to Office Action
Serial No. 09/898,859

been obvious in view of Eden et al to one of ordinary skill in the art to have used the game apparatus of Green in such a game area."

Neither Eden '109 nor Green '524 disclose or suggest the critical elements of the Applicant's apparatus. Claims 14-16 depend from Claim 1 and incorporate all of the elements of Claim 1. Green's apparatus is not a polo training apparatus which includes at least one movable or displaceable ball-receiving surface as described in Applicant's claim 1. Green discloses a stationary floor or playing surface. Eden teaches a hockey playing surface or arena having sloped sides around the playing field. Eden's field is obviously stationary so that hockey players can skate on it. Neither Green nor Eden, however, suggest or teach a polo training apparatus which includes at least one movable or displaceable ball-receiving surface nor do they suggest or teach one or more inclined surfaces adjacent to the displaceable ball-receiving surface.

Neither Green, '524, nor Eden '109 suggest or teach the elements of the claims in question, nor is the subject matter of all the elements of the invention obvious in light of Green and Eden. The present invention as defined in claims 14-16 is patentably distinguished over Green in view of Eden. Applicant respectfully requests the Examiner to withdraw his rejection of claims 14-16 under 35 U.S.C. §103.

C. Rejection of Claims 20-23, 27-31 Greenwood in view of Nakada and Roland

The Examiner rejected claims 20-23, 27-31 under 35 U.S.C. §103(a) stating that the claims are unpatentable, in his opinion, over Greenwood (U.S. Patent No. 5,429,515) in view of Nakada (JP405076658) and Roland (FR2670127). The Examiner has stated that regarding claims 20 and 21, Greenwood '515 shows pressure sensors 96, 96a, 96b positioned on the simulated horse that respond to pressure from the whip of a rider. The Examiner continued to state the position pressure sensors in the feet, knee and/or hand area of the rider as shown in Nakada and Roland are well known.

Contrary to Examiner's basis for rejection, Applicant's claims 20-23 depend from Claim 17 and therefore the elements of Claim 17 are incorporated in Claims 20-23. Claims 17 and 20-23 comprise the element of a body portion that moves side to side. The body portion 44 is distinguished from the '515 disclosure of a neck member 20. Figure 2 shows that the body portion 44 is provided with two pressure sensitive knee sensors 80a, 80b, and feet sensors 82. The '515 patent merely discloses a pivotal neck 20 and sensor means within the neck. It does not disclose Claim 17's elements of a movable body portion and means for displacing the movable body portion so that it pivots from side to side, i.e., an electric motor M. see *Applicant, page 2, lines 8-15*

Although pressure sensors are well known, neither Greenwood, Nakada nor Roland disclose specific sensors that actuate a side to side movement in a dummy horse. All of the apparatus disclosed by Greenwood, Nakada and Roland are limited to up and down movements, see *Greenwood, co.. 5 lines 53-65, the neck and head swing in between the two positions illustrated in chain dot of Fig. 2, also see Nakada abstract, no direction of motion disclosed and Roland, abstract(1) connected to means for generating vertical impulses.*

Claims 22 and 23 depend from claim 17 and have all of Claim 17's elements incorporated within. Display means and display lights are common, however, a dummy horse that is movable from side to side and uses display means and lights to indicate the correct posture for a particular polo shot is unique with Applicant's invention.

Examiner's rejection of claims 20-23 under 35 USC 103 is not appropriate because neither Greenwood, Nakada nor Roland suggest or teach the elements of the claims in question, nor is the subject matter of all the elements of the invention obvious in light of Greenwood, Nakada or Roland. The present invention as defined in claims 20-23 is patentably distinguished over

Response to Office Action
Serial No. 09/898,859

Green in view of Nakada or Roland. Applicant respectfully requests the Examiner to withdraw his rejection of claims 20-23 under 35 U.S.C. §103.

Claims 27 and 28 depend from Claim 24, Claim 24 comprises the following elements:

1. a movable body portion;
2. means for displacing the movable body portion; and
3. sensor means responsive to a simulated riding action in order to control the apparatus.

Claim 27 incorporates all of the above elements as well as pressure sensors adapted to respond to pressure from a part of a rider's body. It is clear from the specification that the simulated rider's action of Applicant's dummy horse includes a cylindrical or galloping motion, *see Applicant page 6, lines 3-10*, as well as side to side motion, *see Applicant page 6, lines 12-16 and Fig. 4*. None of the cited references, either singly or combined, teach or suggest using sensor means to simulate both a galloping action and a side to side motion.

Examiner's rejection of claims 27 and 28 under 35 USC 103 is not appropriate because neither Greenwood, Nakada nor Roland suggest or teach the elements of the claims in question, nor is the subject matter of all the elements of the invention obvious in light of Greenwood, Nakada or Roland. The present invention as defined in claims 27 and 28 is patentably distinguished over Green in view of Nakada or Roland. Applicant respectfully requests the Examiner to withdraw his rejection of claims 27 and 28 under 35 U.S.C. §103.

Response to Office Action
Serial No. 09/898,859

Claims 29-31 depend from Claim 24 and incorporated all of the elements of Claim 24. Applicant's specification teaches that the simulated rider's action of Applicant's dummy horse includes a cylindrical or galloping motion, see *Applicant page 6, lines 3-10*, as well as side to side motion, see *Applicant page 6, lines 12-16 and Fig. 4*. None of the cited references, either singly or combined, teach or suggest using sensor means to increase speed for both a galloping action and a side to side motion.

Hindsight

The Examiner rejected claims 20-23, 27-31 under 35 U.S.C. §103(a) stating that in his belief the claims were unpatentable over Greenwood (U.S. Patent No. 5,429,515) in view of Nakada (JP405076658) and Roland (FR2670127). The Applicant respectfully believes the Examiner is using "hindsight." *In Re Dembicza*k states "combining prior art references without evidence of a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blue-print for piecing together the prior art."¹ The issue is "whether the teachings of the prior art would, in and of themselves and without the benefits" of the current application "make the invention as a whole obvious."² Greenwood, Nakada and Roland, either alone or in combination, do not suggest, teach, or provide a motivation to put the various elements in the Applicant's disclosure together. Also, the Examiner did not state why some one skilled in the art would have been motivated to put the references together. Therefore the Applicant respectfully requests the Examiner to withdraw his rejection under 35 U.S.C. §103(a).

¹ 175 F.3d at 999.

² *In Re Sponnoble*, 160 U.S.P.Q. 237, 405 F.2d 578, (C.C.P.A. 1969) at 585.

III. **SUMMARY**

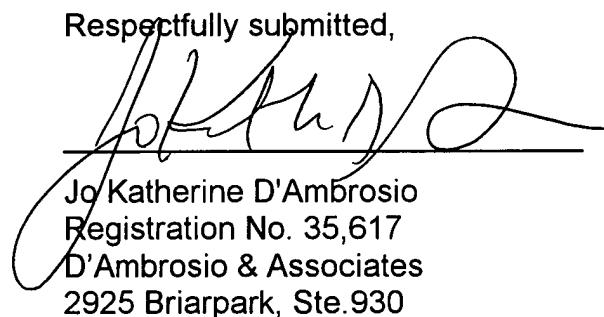
The Applicant has amended claims 6, 14, 17-23 as suggested by the Examiner to overcome obvious typographical errors. Applicant has also responded to Examiner's rejection of claims 1-5 and 7-31 based on §102 and/or §103. Regarding the 102 rejection, Green '524 does not disclose a displaceable ball-receiving surface. There is no basis for a rejection based on novelty since Applicant's invention comprises elements and features that are neither taught or suggested by Green.

Regarding the rejection based on §103, neither Green '524 nor Greenwood '515 either alone or in combination with the cited references, teach or suggest all of the elements and features of Applicant's invention as claimed. There is no valid basis for the rejection of claims under §103.

Claims 1-31 remain pending in the application. Early allowance of these claims is respectfully requested.

Applicant respectfully requests a telephone conference with Examiner if Claims 1-31 are not allowed.

Respectfully submitted,



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